

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A method for part purification of a fibrinogen having a ~~pre-selected~~ high A $\alpha$ -chain integrity from milk, comprising the following steps:

- a) precipitating the fibrinogen from milk; and
- b) separating the precipitated fibrinogen from protease enzymes contained in whey and thereby recovering a part-purified fibrinogen[.];
- c) contacting the part-purified fibrinogen with a hydrophobic interaction chromatography resin under conditions wherein the fibrinogen binds to the resin; and
- d) removing the bound fibrinogen by means of elution, which fibrinogen has high A $\alpha$ -chain integrity.

2. (Cancelled).

3. (Previously Presented) The method of Claim 1, wherein the precipitation step, separation step, or both are achieved in the presence of lysine, a lysine analogue,  $\epsilon$ -aminocaproic acid, or a combination thereof.

4. (Cancelled).

5. (Currently Amended) A method for obtaining fibrinogen having a ~~pre-selected~~ high A $\alpha$ -chain integrity from milk derived from a transgenic mammal ~~a fluid~~, the method comprising:

- (a) contacting the ~~fluid~~ milk with a hydrophobic interaction chromatography resin under conditions wherein the fibrinogen binds to the resin; and
- (b) removing the bound fibrinogen by means of elution, which fibrinogen has high A $\alpha$ -chain integrity.

6 - 8. (Cancelled).

9. (Previously Presented) The method of Claim 1, wherein the protease enzyme is plasmin, plasminogen, or combination thereof.

10- 11. (Cancelled).

12. (Previously Presented) The method of Claim 1, wherein the milk comprises whole milk, skimmed milk, or a milk fraction.

13. (Previously Presented) The method of Claim 1, wherein the milk is derived from a sheep, cow, goat, rabbit, camel, water buffalo, pig or horse.

14. (Currently amended) The method of Claim 1 ~~2~~, wherein the fibrinogen is ~~derived from transgenic bovine or human~~ derived.

15 – 31. (Cancelled).